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(54) Title: **NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH STEROL SYNTHESIS AND METABOLISM**

(57) Abstract: This invention relates to the field of biotechnology, particularly as it pertains to the production of sterols in a variety of host systems particularly plants. More specifically, the invention relates to nucleic acid molecules encoding proteins and fragments of proteins associated with sterol and phytosterol metabolism as well as the encoded proteins and fragments of proteins and antibodies capable of binding to them. The invention also relates to methods of using the nucleic acid molecules, fragments of the nucleic acid molecules, proteins, and fragments of proteins. The invention also relates to cells, organisms, particularly plants, or seeds, or progeny of plants, that have been manipulated to contain increased levels or overexpress at least one sterol or phytosterol compound.

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